

	AUEMA					
Atty. Docket No.	07451.0022-00000		Serial No. 09/617,148			
Applicant	Umesh Maheshwari,	et al.				
Filing Date	July 17, 2000	Group: 27	66			
		U.S. PATEN	T DOCUMENTS			
Examiner Initial*	Document Number	Date	Name	Class	Sub Class	Filing Date
Gl	4,309,569	01/05/82	Merkle	•	_	RF.C.
GN	4,827,508	05/02/89	Shear			
GN	4,977,594	12/11/90	Shear			5 - Z
6n	5,010,571	04/23/91	Katznelson			LROOM OF
6n	5,050,213	09/17/91	Shear	_		Ş
		FOREIGN PAT	ENT DOCUMENTS	S		
	Document Number	Date	Country	Class	Sub Class	Translation Yes or No
61	WO 96/27155	09/06/96	PCT		_	
61	WO 97/43761	11/20/97	PCT			
BL	WO 98/09209	03/05/98	PCT			
61	WO 99/01815	01/14/99	PCT			
61	AU-A-36815/97	04/09/97	Australia			
	OTHER DOCUMEN	TS (Including A	thor, Title, Date,	Pertinent F	Pages, Etc	:.)
6n	Paul Ammann, et a Symp. on Security	I., <u>Surviving Inforr</u> and Privacy, May	nation Warfare Atta 4-7, 1997, pages 1	acks On Da 164-174.	tabases, F	Proc. 1997, IEEE
611	Mihir Bellare, et al., and Engineering De	Forward Integrity epartment, Univer	for Secure Audit L sity of California at	<u>ogs,</u> Techn San Diego	ical Repor 1997, pag	t, Computer Science ges 1-16.
6n	Trevor Blackwell, et al., Heuristic Cleaning Algorithms in Log-Structured File Systems, Proc. of the					
Examiner	Given Wel	-	Date Considered	1 1/2	1/200	4
t	initial if reference consideration if not in communication to application to appl	conformance and	not citation is in cor not considered. In	nformance v	vith MPEP	609; draw line
Form PTO 1449		Detection	d T d d . O	C 11 C	Dan and	ment of Commerce

	MANGUARK			047.440		C
Atty. Docket No.	07451.0022-00000		Serial No. 09/	617,148		20
Applicant	Umesh Maheshwari, d	et al.				
Filing Date	July 17, 2000		Group: 276	66 		3-3
		U.S. PATEN	T DOCUMENTS			780
Examiner Initial*	Document Number	Date	Name	Class	Sub Class	Ciling Date
GN	5,136,648	08/04/92	Olson, et al.			
6rl	5,247,575	09/21/93	Sprague, et al.			
GL	5,319,705	06/07/94	Halter, et al.			
GN	5,394,469	02/28/95	Nagel, et al.			
6n	5,410,598	04/25/95	Shear			
		FOREIGN PAT	ENT DOCUMENTS	<u> </u>		
	Document Number	Date	Country	Class	Sub Class	Translation Yes or No
Gir	AU-A-36840/97	04/09/97	Australia			
	OTHER DOCUMEN	ITS (Including A	uthor, Title, Date,	Pertinent f	Pages, Etc	.}
br	Computing Security	y, Nov. 3-5, 1993,	8 pages.			Communications and
br	Computer Science	, 1991, pages 90-	99. 			f. on Foundations of
bre	Miguel Castro, et a Design and Implen	I., <u>Practical Byza</u> nentation, 1999, p	ntine Fault Tolerand ages 173-186.	e, Third Sy	mposium (on Operating Systems
Gr	Frederick B. Coher Security, 12(6), Els	n, <u>Operating Syst</u> sevier Science Pu	em Protection Thro blishers, Ltd., 1993	ugh Progra , pages 56	m Evolution 5-584.	n, Computers &
6n	Operating System	Design and Imple	stributed Read-Only mentation, 13(16),	Aug. 30, 20	Jou, pages	1-10.
on	Algorithms, 1997,	pages 275-289.			_	rkshop on Distributed
aL	Norman C. Hutchi Operating System	nson, et al., <u>Logic</u> Design and Imple	al vs. Physical File ementation, Feb., 19	System Ba 999, 12 pag	<u>ckup,</u> Proc jes.	of the 3 rd Symp. on
Examiner	Crown L	11	Date Considere		1/200	
*Examiner:	Initial if reference consideration if not in communication to applie	dered, whether or conformance and	not citation is in co I not considered. Ir	nformance nclude copy	with MPEF of this for	e 609; draw line m with next
Form PTO 144			nd Trademark O	ffice - U.S	S. Depart	ment of Commerc

Atty. Docket No. 87451.0022-00000			Serial No. 09/617,148			
Applicant	Umesh Maheshwari,	et al.				
Filing Date	July 17, 2000		Group: 276	6		
		U.S. PATEN	T DOCUMENTS			.TC
Examiner Initial*	Document Number	Date	Name	Class	Sub Class	2 Filing Date
61	5,713,018	01/27/98	Chan	4		3 = [
61	5,794,252	08/11/98	Bailey, et al.			VED 1 2001 1 AAILROOM
GIL	5,826,268	10/20/98	Schaefer, et al.	1		00
Gr	5,892,900	04/06/99	Ginter, et al.	-		3
61	5,910,987	06/08/99	Ginter, et al.	,		
Gn	6,016,490	01/18/00	Watanabe, et al.			
Or V	6,044,370	03/28/00	Anfindsen	ļ		
		FOREIGN PAT	ENT DOCUMENTS			
	Document Number	Date	Country	Class	Sub Class	Translation Yes or No
	OTHER DOCUMEN	ITS (Including Au	uthor, Title, Date, P	ertinent P	ages, Etc	<u> </u>
Gn		et al., Design Prin	nciples for Tamper-f	Resistant S	Smartcard	Processors, Proc. of
Gri	Hugo Krawczyk, Di Annual ACM Symp	stributed Fingerpr . on Principles of (ints and Secure Info Distributed Computi	ormation Ding, Aug. 19	<u>ispersal,</u> P 5-18, 1993	roc. of the Twelfth , pages 207-218.
61	pages 446-457.					, No. 4, April, 1988,
ĠL	David B. Lomet, The Workshop on High	e Case for Log St Performance Tran	ructuring in Databas saction Systems, 1	se System: 995, page:	<u>s,</u> Proceed s 1-5.	lings of the 6 th Int'l
GN	Ralph C. Merkle, P Security and Privac	rotocols for Public cy, IEEE, Catalog	Key Cryptosystems No. 80, 1980, pages	s, Proc. of s 122-134.	the 1980 S	Symposium on
Examiner	Grase 110	,	Date Considered	1/2	100 H	,
*Examiner:	Initial if reference consideration through citation if not in communication to applic	conformance and	not citation is in cont not considered. Inc	formance v lude copy	vith MPEP of this form	609; draw line n with next
Form PTO 1449		Patent and	d Trademark Off	ice - U.S	. Departi	ment of Commerce

Atty. Docket No.	- Angular		Serial No.				
Applicant						10	
Filing Date			Group:			RF JJ 210	
		U.S. PATEN	IT DOCUMENTS			CE	
Examiner Initial*	Documer Number		Name	Class	Sub Class	Filing Date	
						ROOM	
				<u> </u>			
		FOREIGN PAT	TENT DOCUMENTS	S			
	Docume: Number	1	Country	Class	Sub Class	Translation Yes or No	
		JMENTS (Including A					
Gi	Niels Provos, 17, 2000, 10	Encrypting Virtual Mer	nory, Proc. of the 9 ^t	h USENIX S	Security Sy	mposium, Aug. 14-	
GL	Michael O. Ri Tolerance, Jo	Michael O. Rabin, Efficient Dispersal of Information for Security, Load Balancing, and Fault Tolerance, Journal of the ACM, Vol. 36, No. 2, April, 1989, pages 335-348.					
GIL	Mendel Rose of the 13 th AC	Mendel Rosenblum, et al., <u>The Design and Implementation of a Log-Structured File System</u> , Proc. of the 13 th ACM Symposium on Operating Systems Principles, 1991, pages 1-15.					
GI	Mendel Rose Transactions	Mendel Rosenblum, et al. The Design and Implementation of a Log-Structured File System, ACM Transactions on Computer Systems, Vol. 10, No. 1, Feb., 1992, pages 26-52.					
GL	Bruce Schnei 7 th USENIX S	er, et al., <u>Cryptographi</u> security Symposium, Ja	c Support for Secur an. 26-29, 1998, 11	e Logs on t pages.	Untrusted N	Machines, Proc. of the	
Corc	Bruce Schne	er, Applied Cryptograp	hy, Second Edition,	John Wile	y & Sons,	1996, pages. 233-482.	
GL	Margo Seltze the 1993 Win	Margo Seltzer, et al., An Implementation of a Log-Structured File System for Unix, Proceedings of the 1993 Winter USENIX Conference, Jan. 25-29, 1993, pages 307-326.					
GL	Sean W. Smi Intl. Conf. on	th, et al., <u>Using a High</u> Financial Cryptograph	Performance, Prog y, Feb. 23-25, 1998	rammable \$, pages 73-	Secure Cop 89.	processor, Second	
GIL	Tatu Ylonen, April 27, 1994	Tatu Ytonen, Shadow Paging is Feasible, Licentiate's Thesis, Helsinki University of Technology, April 27, 1994, pages 1-149.					
Examiner	Grace	Ice	Date Considered	1 1/2	1/200	4	
*Examiner:	Initial if reference of through citation if recommunication to	considered, whether or not in conformance and applicant.	not citation is in cord not considered. In	nformance clude copy	with MPEP of this form	609; draw line n with next	
Form PTO 1449)	Patent ar	nd Trademark O	ffice - U.S	S. Depart	ment of Commerce	



Atty. Docket No.	07451.0022-00000		Serial No. 09	/617,148	011	Ser.
Applicant	Umesh Maheshwari, e	et al.		b	TT.	5
Filing Date	July 17, 2000	_	Group: 27	66	B 05 1	n 8
		U.S. PATE	NT DOCUMENTS	- 4	& .	A STATE OF THE STA
Examiner Initial*	Document Number	Date	Name	Class	Class	Filing Date If Appropriate
					-	
					1	ECEIVED
						EB - 6 2001
				-	Tech	10logy Center 2100
		FOREIGN PA	TENT DOCUMENTS	s		
	Document Number	Date	Country	Class	Sub Class	Translation Yes or No
61	EP 0 715 246 A1	06/05/96	EP	-		
Gr	WO 99/14652	03/25/99	PCT	_		
				-		
	OTHER DOCUMEN	TS (Including /	Author, Title, Date,	Pertinent F	Pages, Etc	.)
		····			· · · · · · · · · · · · · · · · · · ·	
Examiner	Grau Lee	<u>.</u>	Date Considered	1/21	2004	
*Examiner:	nitial if reference consideration if not in communication to application to applications are applications.	conformance an	r not citation is in cord d not considered. In	nformance v	with MPEP	609; draw line a with next
Form PTO 1449		Patent a	nd Trademark Of	ffice - U.S	. Departr	ment of Commerce



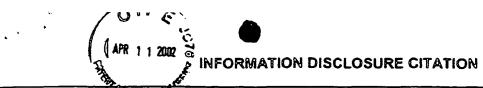


Atty. Docket No.:	07451.0022-00000	Serial No.:	09/617,148
Applicants:	Umesh Maheshwari, et al.		
Filing Date:	July 17, 2000	Group:	2766

Examiner Initial*		Document Number	Issue Date	Name	Class	Sub Class	Filing Date If Appropriate
\overline{C}		5,920,861	07/06/99	Hall, et al.	-		
		5,940,504	08/17/99	Griswold	-		RECEIVED
		5,943,422	08/24/99	Van Wie, et al.	•		
Ma		5,999,949	12/07/99	Crandall			APR 1 5 2002
ekg-		6,112,181	08/29/00	Shear, et al.			Pechnology Center 2
39	1	6,157,721	12/05/00	Shear, et al.	-		
		6,185,683	02/06/01	Ginter ,et al.			
	J	US2001/0042043A1	11/15/01	Shear, et al.	-		

Examiner Initial*	Document Number	Publication Date	Country	Class	Sub Class	Translation Yes or No
\sim	AU-A-36840/97	02/19/98	Australia			
(2)]	WO 98/10381	03/12/98	PCT	-		
(A) (C)	WO 99/48296	09/23/99	PCT	_		

		OTHER DOCUMENTS (Including Author, Title, Date, Pertinent Pages, etc.)
(7	Ross Anderson, et al., "Tamper Resistance - a Cautionary Note", The Second USENIX Workshop on Electronic Commerce Proceedings, Oakland, California, November 18-21, 1996, pages 1-11.
	\	M.P. Atkinson, et al., "The Computer Journal", The Computer Society, Vol. 26, No. 4, November 1983, 6 pages.
		David Aucsmith, "Tamper Resistant Software: An Implementation", First International Workshop, Cambridge, United Kingdom, May 30-June 1, 1996, pages 317-333.
$\bigcap \bigcap \circ$	T	Mihir Bellare, et al., "Forward Integrity for Secure Audit Logs", Dept. of Computer Science and Engineering, University of California San Diego, November 23, 1997, 16 pages.
66-		Michael J. Carey, et al., "The Exodus Extensible DBMS Project: An Overview", Computer Sciences Department, University of Wisconsin, Madison, Wisconsin, pages 1-26.
9 ,		Arvola Chan, et al., "The Implementation of An Integrated Concurrency Control and Recovery Scheme", International Conference on Management of Data, ACM SIGMOD, June 2-4, 1982, pages 184-191.
	1	C. Collberg, "Manufacturing Cheap, Resilient, and Stealthy Opaque Constructs", ACM Press, ACM SIGPLAN-SIGACT, pages 184-196.
	l	Wiebren de Jonge, et al., "The Logical Disk: A New Approach to Improving File Systems", Dept. of Mathematics and Computer Science, Vrije Universiteit, Amsterdam, 14 pages.



Atty. Docket No	.: 0744ED22-00000	Serial No.:	09/617,148	RECEIVED
Applicants:	Umesh Maheshwari, et al.			APR 1 5 2002
Filing Date:	July 17, 2000	Group:	2766	Technology Center 2100

	Carrie Carrier
	OTHER DOCUMENTS (Including Author, Title, Date, Pertinent Pages, etc.)
	J. Gray, "The Benchmark Handbook for Database and Transaction Proceeding Systems", Morgan Kaufmann, 1991.
	Jim Gray, et al., "The Recovery Management of the System R Database Manager", ACM Computing Surveys, Vol. 13, No. 2, June 1981, pages 223-242.
	J. Gray and A. Reuter, "Transaction Processing: Concepts and Techniques, Morgan Kaufmann, 1993.
	C.A.R. Hoare, et al., "An Operating System Structuring Concept", Communications of the ACM, 1974, pages 549-557.
	Deborah Jing-Hwa Hwang, "Function-Based Indexing for Object Oriented Databases", Ph.D. Thesis, MIT, February 1994 172 pages.
	A. Kemper, et al., "Function Materialization in Object Bases", In Proceedings of the ACM SIGMOD International Conference on Management of Data", May 29-31, 1991, pages 258-267.
	Charles Lamb, et al.,"The Objectstore Database System", Communications of the ACM, Vol. 34, No. 10, October 1991, pages 50-63.
	B. Liskov, et al., "Safe and Efficient Sharing of Persistent Objects in Thor", ACM SIGMOD, Vol. 25, Issue 2, June 1996, pages 318-329.
201	David Maier, et al., "Indexing in an Object-Oriented DBMS", International Workshop on Object-Oriented Database Systems, IEEE Computer Society Press, September 23-26, 1986, pages 171-182.
	David Mazieres, et al., "Separating Key Management from File System Security", 17 th ACM Symposium on Operating Systems Principles, Vol. 34, No. 5, December 1999, pages 124-139.
	J. Melton and A. Simon. The New SQL: A Complete Guide. Morgan Kaufmann, 1993.
	A. Menzes, P. van Oorschot, and S. Vanstone, "Handbook of Applied Cryptography", CRC Press, 1995.
	Ralph C. Merkle, "Protocols For Public Key Cryptosystems", Proceedings of the 1980 Symposium on Security and Privacy, Oakland, California, April 14-16, 1980, IEEE Catalog No. 80 CH1522-2, Library of Congress, 1980, pages 122-134.
	C. Mohan, et al., "Aries/IM: An Efficient and High Concurrency Index Management Method Using Write-Ahead Logging", The Association for Computing Machinery, 1992, pages 371-380.
	J. Eliot B. Moss, "Working with Persistent Objects: To Swizzle or Not to Swizzle", Computer and Information Science, University of Massachusetts, Amherst, Massachusetts, July 19, 1991, pages 1-39.
	Margo I. Seltzer, et al., "Challenges in Embedded Database System Administration", USENIX Proceedings of the Embedded Systems Workshop", March 29-31, 1999, pages 1-7.
	Sean W. Smith, et al., "Using a High-Performance, Programmable Secure Coprocessor", Proceedings of the Second International Conference on Financial Cryptography", 1998, pages 1-17.

Atty. Docket No.:	07451.0022-00000	Serial No.:	09/617,148	RECEIVED
Applicants:	Umesh Maheshwari, et al.			APR 1 5 2002
Filing Date:	July 17, 2000	Group:	2766	Technology Center 210

Applicants:	Umesh Maheshwari, et al.			APR 1 5 2002	
Filing Date:	July 17, 2000	Group:	2766	Technology Center 2	
	OTHER DOCUMENTS (Incl	luding Author, Title, Date	, Pertinent Page		
	Olin Sibert, et al., "DigiBox: A Self-Protecting Container for Information Commerce", Proceedings of the first USENIX Workshop on Electronic Commerce, New York, NY, July 1995, 13 pages.				
1	Michael Stonebraker, "The Design of the Postgres Storage System", Navy Electronics Systems Commander, EECS Department, University of California, Berkeley, California, pages 1-18.				
39.	"Cryptographic Security and Key Management Systems - the nFast/KM Solution", nCipher Corp. Limited, January 1998, http://www.ncipher.com/products/rscs/downloads/whitepapers/key.pdf				
	"Product Standard Data Mana	gement: ISAM", The Oper	Group, January	1998, 4 pages.	
Examiner	Durshmed .	Date Considere	ed 5/20/0	4	
*Examiner:	Initial if reference considered, who through citation if not in conforma communication to applicant.				
Form PTO 1449		Patent and Trade	emark Office - U.S	S. Department of Commerce	